Dean Morris successfully uses deficit irrigation to improve the sweetness of his mandarins.

Results are sweet

LEETON grower Dean Morris, of Moricom Orchards, had a "gut feel" he could use deficit irrigation to increase brix on very vigorous rootstocks.

He was correct and, even though he has refined his technique over the years, he still relies on gut feel every year.

Mr Morris will expand on his technique at the 2019 Citrus Tech Forum, to be held in Adelaide on March 6 and 7.

NSW DPI researcher Tahir Khurshid, who is now undertaking research on deficit irrigation to improve flavour profiles, will also discuss his research.

Mr Morris planted 40ha of afourer mandarin trees in 2007, planting 20ha on vigorous rootstock such as rough lemon and macrophylla and 20ha on traditional rootstocks.

The theory was that fruit on the vigorous rootstock would mature earlier, enabling him to pick the same variety for 12 weeks.

"I had an inkling we could get 12 brix or better by reducing the water applied for the last 12 weeks," Mr Morris said.

Mr Morris said with trial and error, the the minimum target of 12 brix for the brand was achieved.

Trees are planted on large mounds, with two drippers per tree, providing complete control when water is turned off.

"Roots are in the top 40cm of soil, so they're not affected by large amounts of rainfall," he said.

Although Dr Khurshid's research is "fine-tuning" methods employed by Mr Morris and other growers, Mr Morris said he still relied on "gut feel".

"I look at the tree, taste the fruit, and if fruit is getting soft, I turn the water back on."

The technique saves one megalitre of water per hectare, cuts power costs, does not affect fruit size and causes minimal fruit drop, and Mr Morris said it produced consistent yields and little biannual bearing.

He said said every Australian grower must continually improve fruit quality to maintain the industry's advantage over competitors.

"Our industry's biggest threat is our overseas competitors. South American countries will take us out of China like they did in the US if we don't improve," he said.

"If we do nothing and rest on our laurels, everyone will catch up.

"Others will be $8 cheaper and taste just as good."

The 2019 Citrus Technical Forum will be held at the Adelaide Convention Centre.

Register at www.citrusaustralia.com.au/events.

Rural platform uses data from geospace

FARMERS will soon have the best scientific information on their farm's performance at their fingertips.

The new Rural Intelligence Platform will bring together information from organisations such as CSIRO and the Bureau of Meteorology while tracking changes on the land in farming regions.

Minister for Agriculture David Littleproud welcomed the announcement of the platform last week by the Minister for Industry, Science and Technology Karen Andrews, CSIRO and Digital Agriculture Services as an exciting step forward for farming.

"This gives farmers access to cutting-edge technology and the latest data so they can be more sustainable and productive," he said.

"Satellites will keep an eye on changes to the land and analyse that alongside productivity, water access, drought and soil mapping data.

"This will let farmers better understand the risks they are facing such as drought, frost and livestock vulnerability."

Users will be able to find out how many animals can graze a specific piece of land based on satellite analysis of the colour spectrum of pastures.

"This will give farmers a better picture of what is happening on their farm to help prepare for challenges like drought and to boost productivity," Mr Littleproud said.

The platform combines artificial intelligence, machine learning and cloud-based geospace technology and incorporates an automated valuation model capable of valuing rural properties instantly.

"Investors will also get a more accurate information about how other farmers are doing so they can compare and make better business decisions," Mr Littleproud said.

"This information could help achieve the National Farmers' Federation's bold vision for Australian agriculture to be a $100 billion industry by 2030."

More information is available at digitalagriculturereservices.com.